

Title (en)

Method and device of dynamic resource allocation in a wireless network

Title (de)

Verfahren und Vorrichtung zur dynamischen Ressourcenzuweisung in einem drahtlosen Netz

Title (fr)

Procédé et dispositif pour l'allocation de ressource dynamique dans un réseau sans fil

Publication

EP 1560377 A1 20050803 (EN)

Application

EP 04290255 A 20040130

Priority

EP 04290255 A 20040130

Abstract (en)

There is disclosed a method of dynamic transmission resource allocation in a wireless network comprising a plurality of Mobile Terminals or MTs each managing a given number of different data flows (4-9) of Protocol Data Units or PDUs which are classified according to a set of flow types, a Radio Resource Management or RRM unit for allocating transmission resources on a per PDU basis; a plurality of schedulers (2,3) operating according to a specific set of rules; and a selector (1) for sharing said transmission resource among said MTs. The MTs or the RRM unit send Request Resource or RR messages to the RRM unit to request transmission resource. The RRM unit dispatches the RR messages to the schedulers based on flow type information included in each RR message. Each one of the schedulers elects one PDU as candidate for a next transmission resource allocation. The selector (1) allocates transmission resource to one candidate according to a set of priority rules, a given priority being assigned to each flow type. The specific set of rules comprises a rule applied in case of transmission errors for reducing the bandwidth allocated to data flows belonging to the flow types assigned with comparatively lower priority compared to the bandwidth allocated thereto according to a rule applied in case of error free transmission. <IMAGE>

IPC 1-7

H04L 12/56

IPC 8 full level

H04J 3/00 (2006.01); **H04L 12/28** (2006.01); **H04L 12/56** (2006.01); **H04W 72/10** (2009.01); **H04L 29/06** (2006.01); **H04W 28/04** (2009.01); **H04W 28/22** (2009.01); **H04W 72/12** (2009.01); **H04W 84/12** (2009.01)

CPC (source: EP US)

H04L 69/165 (2013.01 - EP US); **H04W 72/56** (2023.01 - EP US); **H04L 69/16** (2013.01 - EP US); **H04W 28/22** (2013.01 - EP US); **H04W 84/12** (2013.01 - EP US)

Citation (search report)

- [AD] FATTAH H ET AL: "AN OVERVIEW OF SCHEDULING ALGORITHMS IN WIRELESS MULTIMEDIA NETWORKS", IEEE WIRELESS COMMUNICATIONS, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 9, no. 5, October 2002 (2002-10-01), pages 76 - 83, XP001132259, ISSN: 1070-9916
- [A] ROMAIN ROLLET ET AL: "Field trial results at DLC layer of a HiperLAN/2 prototype", VTC 2003-SPRING. THE 57TH. IEEE SEMI-ANNUAL VEHICULAR TECHNOLOGY CONFERENCE. PROCEEDINGS. JEJU, KOREA, APRIL 22 - 25, 2003, IEEE VEHICULAR TECHNOLOGY CONFERENCE, NEW YORK, NY : IEEE, US, vol. VOL. 2 OF 4. CONF. 57, 22 April 2003 (2003-04-22), pages 1474 - 1478, XP002283097, ISBN: 0-7803-7757-5

Cited by

CN102710610A; CN110932769A; CN100456870C; WO2009015189A3

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 1560377 A1 20050803; **EP 1560377 B1 20061227**; AT E349840 T1 20070115; DE 602004003895 D1 20070208; DE 602004003895 T2 20070906; JP 2005218118 A 20050811; JP 4624816 B2 20110202; US 2005249114 A1 20051110; US 7525970 B2 20090428

DOCDB simple family (application)

EP 04290255 A 20040130; AT 04290255 T 20040130; DE 602004003895 T 20040130; JP 2005023960 A 20050131; US 1686204 A 20041221